

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.*

## C-A OPERATIONS PROCEDURES MANUAL

### ATTACHMENT

#### 1.10.2.c Collider-Accelerator EMS Document Flow-Down Matrix

Text Pages 2 through 7

C-A OPM Procedures in which this Attachment is used.		
1.10.2		

#### Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: *Signature on File* \_\_\_\_\_  
 Collider-Accelerator Department Chairman Date

M. Van Essendelft

## C-A Department Environmental Management System Documentation Flow-Down

<b><u>ISO Elements</u></b>	<b><u>C-A Contact</u></b>	<b><u>Laboratory Level MSD /SA/ Document</u></b>	<b><u>C-A Procedure/ Document</u></b>	<b><u>C-A Records</u></b>
Environmental policy	<ul style="list-style-type: none"> <li>❖ C A Department Chairman</li> <li>❖ Associate Chair for ESHQ</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Stewardship Policy</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 1.10</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
Environmental aspects	<ul style="list-style-type: none"> <li>❖ Associate Chair for ESHQ</li> <li>❖ Environmental Compliance Representative</li> </ul>	<ul style="list-style-type: none"> <li>• Work Planning and Control MSD</li> <li>• Process Assessment SA</li> <li>• Identification of Significant Environmental Aspects and Impacts SA</li> <li>• Hazard Analysis SA</li> <li>• Accelerator Safety SA</li> </ul>	<ul style="list-style-type: none"> <li>• Process Evaluations</li> <li>• OPM 2.28</li> <li>• OPM 2.29</li> <li>• OPM 9.1.12</li> <li>• OPM 9.1.15</li> <li>• OPM 9.2.1</li> <li>• OPM 9.3.1</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Aspects Matrix</li> <li>• Summary of Significant Environmental Aspects</li> </ul>
Legal & other requirements	<ul style="list-style-type: none"> <li>❖ Environmental Compliance Representative</li> </ul>	<ul style="list-style-type: none"> <li>• Requirements Management SA</li> <li>• Laboratory-Wide Procedures and Guidelines SA</li> <li>• Requesting SBMS Variances SA</li> <li>• Brookhaven National Laboratory Pollution Prevention Program Description</li> <li>• Pollution Prevention and Waste Minimization SA</li> <li>• National Environmental Policy Act (NEPA) and Cultural Resource Evaluations SA</li> <li>• Groundwater Protection Contingency SA</li> <li>• Environmental Monitoring SA</li> <li>• Accelerator Safety SA</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Management Program forms( for each Process Evaluation)</li> </ul>
Objectives and targets	<ul style="list-style-type: none"> <li>❖ Associate Chair for ESHQ</li> <li>❖ C-A Quality Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated Planning MSD</li> <li>• Integrated Assessment Subject Area</li> <li>• Critical Outcome Performance Measures SA</li> <li>• BNL Critical Outcomes/ Objectives/ Performance Measures</li> <li>• Identification of Significant Environmental Aspects and Impacts SA</li> <li>• FY04 Lab-level Environmental Objectives with Suggested Targets</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Management Program forms (for each Process Evaluation)</li> </ul>
Environmental Management Program	<ul style="list-style-type: none"> <li>❖ ESH Coordinator</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated Planning MSD</li> <li>• Identification of Significant Environmental Aspects and Impacts SA</li> <li>• FY04 Lab-level Environmental Objectives with Suggested Targets</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Management Program forms (for each Process Evaluation)</li> </ul>

<b><u>ISO Elements</u></b>	<b><u>C-A Contact</u></b>	<b><u>Laboratory Level MSD /SA/ Document</u></b>	<b><u>C-A Procedure/ Document</u></b>	<b><u>C-A Records</u></b>
Structure and responsibility	<ul style="list-style-type: none"> <li>❖ Associate Chair for ESHQ</li> <li>❖ C-A Quality Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Human Resources MSD</li> <li>• Environmental MSD</li> <li>• BNL Organizational Chart</li> </ul>	<ul style="list-style-type: none"> <li>• C-A personnel R2A2s</li> <li>• OPM 1.10</li> </ul>	<ul style="list-style-type: none"> <li>• EMS reports to top management by management representative</li> </ul>
Training, awareness, and competence	<ul style="list-style-type: none"> <li>❖ C-A Training Manager</li> </ul>	<ul style="list-style-type: none"> <li>• Training and Qualifications MSD</li> <li>• Training and Qualifications SA</li> <li>• New Employee Form and Procedures</li> <li>• Contractor/ Vendor Form and Procedure</li> <li>• Job Hazard Training Assessment Tool</li> <li>• Environmental Protection Course</li> <li>• Guests &amp; Visitors SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 1.12</li> <li>• C-A personnel JTAs</li> <li>• C-A job specific EMS training courses</li> </ul>	<ul style="list-style-type: none"> <li>• BTMS records</li> </ul>
Communication	<ul style="list-style-type: none"> <li>❖ Associate Chair for ESHQ</li> </ul>	<ul style="list-style-type: none"> <li>• Internal Communications MSD</li> <li>• External Communications MSD</li> <li>• EMS Program Communications Plan</li> <li>• Correspondence and Commitment Tracking SA</li> <li>• BNL Community Involvement Plan</li> <li>• Community Involvement in Lab Issues SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 1.10.3</li> <li>• OPM 2.12</li> <li>• C-A Web Site</li> <li>• CCTS</li> </ul>	<ul style="list-style-type: none"> <li>• CCTS correspondence (from outside parties, C-A decisions and responses)</li> <li>• Checklists for Identifying Issues and Decisions that may Require Community Involvement</li> </ul>
EMS Documentation	<ul style="list-style-type: none"> <li>❖ Environmental Compliance Representative</li> <li>❖ C-A Quality Office</li> </ul>	<ul style="list-style-type: none"> <li>• ISO 14001 “Plus” EMS Manual</li> <li>• BNL Environmental Management System Description</li> </ul>	<ul style="list-style-type: none"> <li>• C-A OPM 1.10.2</li> <li>• C-A-ATT-1.10.2.b</li> <li>• C-A-ATT-1.10.2.c</li> <li>• Process Evaluations</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>

<b><u>ISO Elements</u></b>	<b><u>C-A Contact</u></b>	<b><u>Laboratory Level MSD /SA/ Document</u></b>	<b><u>C-A Procedure/ Document</u></b>	<b><u>C-A Records</u></b>
Document Control	❖ C-A Quality Office	<ul style="list-style-type: none"> <li>• Laboratory-Wide Procedures and Guidelines SA</li> <li>• Internal Controlled Documents SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 13.4 (all)</li> <li>• OPM 1.1</li> <li>• OPM 1.2</li> <li>• OPM 1.4</li> </ul>	<ul style="list-style-type: none"> <li>• Obsolete EMS records suitably identified and archived</li> </ul>
Operational Control	<ul style="list-style-type: none"> <li>❖ Associate Chair for ESHQ</li> <li>❖ Environmental Compliance Representative</li> <li>❖ ESH Coordinator</li> </ul>	<ul style="list-style-type: none"> <li>• Work Planning and Control for Experiments and Operations SA</li> <li>• Process Assessments SA</li> <li>• Identification of Significant Environmental Aspects and Impacts SA</li> <li>• Internal Controlled Documents SA</li> <li>• Operational Readiness Evaluation SA</li> <li>• Accelerator Safety SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 1.19</li> <li>• OPM 2.28</li> <li>• OPM 2.29</li> <li>• OPM 2.5</li> <li>• OPM 2.5.1</li> <li>• OPM 2.5.2</li> <li>• OPM 6.1.10</li> <li>• OPM 6.1.11</li> <li>• OPM 9.1.15</li> <li>• OPM 9.2.1</li> <li>• OPM 9.3.1</li> <li>• TPL 02-01</li> <li>• TPL 02-02</li> <li>• TPL 02-03</li> </ul>	<ul style="list-style-type: none"> <li>• Operational Control Forms (for each Process Evaluation)</li> <li>• Process assessment form/ Corrective action tracking database (ESD)</li> <li>• Communication/ correspondence concerning procedures &amp; requirements to suppliers and outside contractors</li> </ul>
Emergency preparedness and response	❖ ESH Coordinator	<ul style="list-style-type: none"> <li>• Emergency Preparedness and Off-Normal Event Reporting MSD</li> <li>• Emergency Response Services MSD</li> <li>• Emergency Preparedness SA</li> <li>• Spill Response SA</li> <li>• Groundwater Protection Contingency Plan SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM Chapter 3</li> <li>• OPM 10.1</li> <li>• OPM 10.2</li> </ul>	<ul style="list-style-type: none"> <li>• See ORPS Documentation</li> </ul>

<b><u>ISO Elements</u></b>	<b><u>C-A Contact</u></b>	<b><u>Laboratory Level MSD /SA/ Document</u></b>	<b><u>C-A Procedure/ Document</u></b>	<b><u>C-A Records</u></b>
Monitoring and measurement	<ul style="list-style-type: none"> <li>❖ Associate Chair for ESHQ</li> <li>❖ Environmental Compliance Representative</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Monitoring SA</li> <li>• Calibration SA</li> <li>• Environmental Assessments SA</li> <li>• Integrated Planning MSD</li> <li>• Hazardous Waste Management SA</li> <li>• Liquid Effluents SA</li> <li>• Mixed Waste Management SA</li> <li>• PCB Management SA</li> <li>• Radioactive Airborne Emissions SA</li> <li>• Radioactive Waste Management SA</li> <li>• Storage and Transfer of Hazardous and Non-Hazardous Materials SA</li> <li>• Drinking Water SA</li> <li>• Under Injection Control (UIC) SA</li> <li>• Non-Radioactive Airborne Emissions</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 1.14</li> <li>• OPM 1.15</li> <li>• OPM 6.1.10</li> <li>• OPM 8.16.1</li> <li>• OPM 8.16.2</li> <li>• OPM 8.16.3</li> <li>• OPM 8.16.4</li> <li>• OPM 8.16.5</li> <li>• OPM 8.16.6</li> <li>• OPM 8.16.7</li> <li>• OPM 8.18.1</li> <li>• OPM 8.18.1a</li> <li>• OPM 8.18.4</li> <li>• OPM 8.18.5</li> <li>• OPM 8.20</li> <li>• OPM 8.20.1</li> <li>• OPM 8.20.2</li> <li>• OPM 8.22</li> <li>• OPM 8.27</li> <li>• OPM 8.31</li> <li>• OPM 9.5.12</li> <li>• OPM 9.5.15</li> <li>• OPM 2.30</li> <li>• OPM 2.19</li> </ul>	<ul style="list-style-type: none"> <li>• Performance tracking data</li> <li>• Weekly analytical results on cooling system water (Drew)</li> <li>• Monthly SPDES sampling and DMR (ESD)</li> <li>• Chemical Management System (PE)</li> <li>• Cryogenic Shift Log</li> <li>• MCR Shift Log</li> <li>• Geomembrane Cap inspection records (beam stops &amp; collimators)</li> <li>• Radioactive Waste Inventory Sheet (8.20.2.a)</li> <li>• Radioactive Waste Control Form (8.20.2.b)</li> <li>• Deionizer Maintenance Form (8.31.c)</li> <li>• Acid Flushing (8.31.g)</li> <li>• Water Systems Status of Equipment (8.16.1.a)</li> <li>• Annual NESHAPs report</li> <li>• RCT analytical reports</li> <li>• Authorization memos for the clearance of waste oil to be burned at the CSF</li> <li>• PCB inventory record</li> <li>• NYSDEC permits for bead blaster and machine shop</li> <li>• Hood</li> <li>• Logbook estimates for air emissions</li> </ul>

<b><u>ISO Elements</u></b>	<b><u>C-A Contact</u></b>	<b><u>Laboratory Level MSD /SA/ Document</u></b>	<b><u>C-A Procedure/ Document</u></b>	<b><u>C-A Records</u></b>
				<ul style="list-style-type: none"> <li>• Monthly Inspection Checklist for Storage Tanks/Portable containers/Bulk Storage (1.14.a)</li> <li>• Quarterly Inspection Checklist for Outdoor Storage/Work areas (1.14.b)</li> <li>• Tanker Operations Log (1.14.d)</li> <li>• Sample Analysis from Known Beam Loss Locations</li> </ul>
Nonconformance & corrective and preventive action	❖ C-A Quality Office	<ul style="list-style-type: none"> <li>• Nonconformances SA</li> <li>• Corrective and Preventive Action SA</li> <li>• Occurrence Reporting and Processing System SA</li> <li>• Critique SA</li> <li>• Lessons Learned SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 13.3.2</li> </ul>	<ul style="list-style-type: none"> <li>• Non-conformance and corrective &amp; preventive action reports</li> <li>• Tier I Inspection Records/Tracking Database</li> <li>• QA Assessments/Tracking Database</li> </ul>
				<ul style="list-style-type: none"> <li>• Changes in documentation resulting from an Environmental NCR</li> </ul>
Records	❖ C-A Quality Office	<ul style="list-style-type: none"> <li>• Records Management SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 13.4.1</li> </ul>	<ul style="list-style-type: none"> <li>• Training records</li> </ul>
EMS audit	❖ C-A Quality Office	<ul style="list-style-type: none"> <li>• Integrated Assessment Program</li> <li>• Environmental Assessments SA</li> <li>• Integrated Assessment SA</li> </ul>	<ul style="list-style-type: none"> <li>• OPM 13.10.1</li> <li>• C-A Self-Assessment Program</li> </ul>	<ul style="list-style-type: none"> <li>• C-A EMS Audit Report &amp; schedule</li> <li>• DOE-EH ISME Report</li> <li>• C-A Management Assessment Procedure (and assessment schedule)</li> </ul>

<b><u>ISO Elements</u></b>	<b><u>C-A Contact</u></b>	<b><u>Laboratory Level MSD /SA/ Document</u></b>	<b><u>C-A Procedure/ Document</u></b>	<b><u>C-A Records</u></b>
Management review	❖ Associate Chair for ESHQ	<ul style="list-style-type: none"> <li>• Environmental Assessments SA</li> <li>• Integrated Assessment Program</li> <li>• Integrated Assessment SA</li> </ul>	<ul style="list-style-type: none"> <li>• C-A Self-Assessment Program</li> </ul>	<ul style="list-style-type: none"> <li>• C-A EMS Management Review Schedule</li> <li>• C-A EMS Management Review Presentation</li> <li>• C-A EMS Management Review Minutes</li> <li>• C-A EMS Record of Decision</li> </ul>